

Serial No.: 10/534,170
Docket No.: 09792909-6249
Amendment "A" dated February 22, 2008
Reply to the Office Action of November 29, 2007

REMARKS

A. Introduction

Claims 1-11 were pending and under consideration in the application.

In the Office Action of November 29, 2007 claims 1-5, and 8 were rejected under 35 U.S.C. 103(a) as being unpatentable over Gowda, et al., U.S. 6,275,259 (hereinafter, "Gowda") in view of Fowler, U.S. 6,757,018 (hereinafter, "Fowler"), further in view of Blerkom, et al., U.S. 6,870,565 (hereinafter, "Blerkom").

Claim 6 was rejected under 35 U.S.C. 103(a) as being unpatentable over Gowda in view of Fowler and Blerkom, further in view of Pain, et al., U.S. 7,268,814 (hereinafter, "Pain").

Claim 7 was rejected under 35 U.S.C. 103(a) as being unpatentable over Gowda in view of Fowler and Blerkom, further in view of Bell, et al., U.S. 7,106,372, (hereinafter, "Bell") and Pain.

Claims 9-10 were rejected under 35 U.S.C. 103(a) as being unpatentable over Gowda and Fowler, in view of Pain.

Claim 11 was rejected under 35 U.S.C. 103(a) as being unpatentable over Gowda and Fowler, in view of Pain and further in view of Blerkom.

In response, claim 5 is being canceled, and the remaining claims are being amended for clarity, to cure informalities, and to clarify that an AD memory stores analog signals and includes AD converter circuits for converting the stored analog signals to produce a converted digital signal. Support for the amendment is found, at least, in former claim 5 and paragraph 0038. (Paragraph references are with respect to the application as published as U.S. 2006/0103748). Accordingly, no new matter is being added.

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B. Rejections under 35 U.S.C. 103(a)

1. Claims 1-5, and 8 were rejected under 35 U.S.C. 103(a) as being unpatentable over Gowda in view of Fowler, further in view of Blerkom. Claim 5 is being canceled. Claims 2-4 and 8 each depend from claim 1.

Claim 1, as amended, is patentable over the combination of Gowda, Fowler and Blerkom.

Gowda discloses an automatic gain control circuit for image systems. Gowda, col. 1 lines 6-9. Gowda provides for electrical signals from an array of pixels to be fed directly to analog-to-digital converters (ADC's). Col. 2, lines 30-46. The Office Action conceded (Para. 2) that Gowda fails to disclose an ADC memory.

Fowler fails to cure this deficiency. At most, Fowler discloses a memory for storing the *output* of an ADC. Fowler, fig. 3, col. 4, lines 44-58. Fowler fails to teach or suggest memory for storing analog signals coupled to the input of an ADC, as presently claimed. Because this feature is not taught or suggested by Gowda in view of Fowler, the Office Action fails to establish that the invention as a whole is obvious in light thereof. See MPEP 2143.03. "All words in a claim must be considered in judging the patentability of that claim against the prior art." *In re Wilson*, 424 F. 2d 1382, 1385.

Blerkom is cited for teaching an image device with pixel array and ADC with a pixel array scanning circuit and an AD array readout circuit. Even if true, this disclosure fails to cure the deficiencies noted above.

Because a dependent claim includes all the limitations of the claim from which it depends, claims 2-4 and 8 are also patentable over this combination of references.

2. Claim 6 was rejected under 35 U.S.C. 103(a) as being unpatentable over Gowda in view of Fowler and Blerkom, further in view of Pain. Claim 6 depends from claim 1. For the reasons

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given above, claim 1 is patentable over the combination of Gowda, Fowler and Blerkom. Pain is cited for disclosing an ADC in an imaging array where the ADC array is the same size as the pixel array. Even if true, this disclosure fails to cure the deficiencies noted above.

3. Claim 7 was rejected under 35 U.S.C. 103(a) as being unpatentable over Gowda in view of Fowler and Blerkom, further in view of Bell and Pain. Claim 7 depends from claim 1. For the reasons given above, claim 1 is patentable over the combination of Gowda, Fowler and Pain. Bell is cited for disclosing reading out a pixel array to an ADC on a per row basis. Even if true, this disclosure fails to cure the deficiencies noted above.

4. Claims 9-10 were rejected under 35 U.S.C. 103(a) as being unpatentable over Gowda and Fowler, in view of Pain. Claim 10 depends from independent claim 9. Claim 9, as amended is patentable over the combination of Gowda, Fowler and Pain, which fail to suggest the present invention.

Gowda discloses an automatic gain control circuit for image systems. Gowda, col. 1 lines 6-9. Gowda provides for electrical signals from an array of pixels to be fed directly to analog-to-digital converters (ADC's). Col. 2, lines 30-46. The Office Action conceded (Para. 2) that Gowda fails to disclose an ADC memory.

Fowler fails to cure this deficiency. At most, Fowler discloses a memory for storing the *output* of an ADC. Fowler, fig. 3, col. 4, lines 44-58. Fowler fails to teach or suggest memory for storing analog signals read from the pixel array and carrying out AD conversion on these analog signals, as presently claimed. Because this feature is not taught or suggested by Gowda in view of Fowler, the Office Action fails to establish that the invention as a whole is obvious in light thereof. See MPEP 2143.03. "All words in a claim must be considered in judging the patentability of that claim against the prior art." *In re Wilson*, 424 F. 2d 1382, 1385.

Pain is cited for disclosing an ADC in an imaging array where the ADC array is the same

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size as the pixel array. Even if true, this disclosure fails to cure the deficiencies noted above.

Because a dependent claim includes all the limitations of the claim from which it depends, claim 10 is also patentable over this combination of references.

5. Claim 11 was rejected under 35 U.S.C. 103(a) as being unpatentable over Gowda and Fowler, in view of Pain and further in view of Blerkom. Claim 11 depends from claim 9. For the reasons given above, claim 9 is patentable over the combination of Gowda, Fowler and Pain. As a result, claim 11 is also patentable over this combination of references.

C. Conclusion

In view of the foregoing, it is submitted that claims 1-4 and 6-11 are allowable and that the application is in condition for allowance. Early notice to that effect is respectfully requested.

If any further fees are required in connection with the filing of this amendment, please charge the same to our Deposit Account No. 19-3140.

Respectfully submitted,

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